

## CLAIMS

What is claimed is:

1. A method comprising:  
  
measuring an attribute of an airflow through a first naris;  
  
measuring an attribute of an airflow through a second naris;  
  
wherein measuring the attribute of the airflow through the first naris is accomplished  
  
without blocking the second naris; and  
  
wherein measuring the attribute of the airflow through the second naris is accomplished  
  
without blocking the first naris.
2. The method as defined in claim 1 wherein the measuring steps take place substantially simultaneously.
3. The method as defined in claim 1 wherein each measuring step takes place during inhalation.
4. The method as defined in claim 1 wherein each measuring step takes place during exhalation.
5. The method as defined in claim 1 further comprising determining a difference in the attribute between the first and second naris.

6. The method as defined in claim 1 wherein the measuring an attribute steps further comprise measuring at least a portion of the airflow through each of the first and second naris to create a first and second measured airflow respectively.
7. The method as defined in claim 6 wherein the measuring steps take place during inhalation.
8. The method as defined in claim 6 wherein the measuring step takes place during exhalation.
9. The method as defined in claim 6 wherein measuring at least a portion of the airflow through the first naris further comprises measuring at a known distance within the first naris.
10. The method as defined in claim 6 wherein measuring at least a portion of the airflow through the first naris further comprises measuring the airflow through a sensing tube of a bifurcated nasal cannula worn by a patient.
11. The method as defined in claim 6 further comprising determining a difference in the first and second measured airflows.
12. The method as defined in claim 1 wherein the measuring an attribute steps further comprise measuring a pressure associated with the airflow through each of the first and second naris.

13. The method as defined in claim 12 wherein the measuring steps further comprise measuring a pressure proximate to an opening of each of the first and second naris.

14. The method as defined in claim 12 further comprising determining a difference in the pressure measured between the first and second naris.

15. The method as defined in claim 12 wherein the measuring steps take place during inhalation.

16. The method as defined in claim 12 wherein measuring the pressure associated with the airflow through the first naris further comprises measuring a pressure in a sensing tube of a bifurcated nasal cannula worn by a patient.

17. The method as defined in claim 1 further comprising measuring an attribute of an oral airflow.

18. The method as defined in claim 17 wherein the measuring an attribute steps further comprise measuring substantially simultaneously.

19. A nasal function test device comprising:  
a first airflow sensor adapted to detect at least a portion of an airflow through a first naris to  
create a first measured flow signal;

a second airflow sensor adapted to detect at least a portion of an airflow through a second  
naris to create a second measured flow signal; and  
a processor electrically coupled to the first and second airflow sensors, and wherein the  
processor is programmed to substantially simultaneously read the first and second  
measured flow signals.

20. The nasal function test device as defined in claim 19 further comprising:  
a third airflow sensor coupled to the processor, the third airflow sensor adapted to detect at  
least a portion an oral airflow to create a measured oral flow signal; and  
wherein the processor is programmed to substantially simultaneously read the first  
measured flow signal, the second measured flow signal, and the measured oral flow  
signal.
21. The nasal function test device as defined in claim 19 wherein the processor is further  
adapted to determine a difference between the first and second measured flow signals.
22. The nasal function test device as defined in claim 19 further comprising a display device  
coupled to the processor, and wherein the processor displays an indication of the first and second  
measured flow signals on the display device.
23. The nasal function test device as defined in claim 22 wherein the display device displays a  
graph of the first and second measured flow signals as a function of time.

24. The nasal function test device as defined in claim 22 wherein the display device displays a difference between the first and second measured flow signals.
25. The nasal function test device as defined in claim 19 further comprising:  
a non-volatile memory coupled to the processor; and  
wherein the processor is programmed to store the first and second measured flow signals as  
a first set of data in the non-volatile memory, and wherein the processor is further  
programmed to analyze differences between the first set of data in the non-volatile  
memory and a second set of data taken at a different time.
26. The nasal function test device as defined in claim 19 further comprising:  
a bifurcated nasal cannula having a first sensing tube and a second sensing tube; and  
wherein the first sensing tube fluidly couples to the first airflow sensor, and wherein the  
second sensing tube fluidly couples to the second airflow sensor.
27. The nasal function test device as defined in claim 26 wherein the first sensing tube has an  
opening positioned within the airflow of the first naris.
28. The nasal function test device as defined in claim 27 wherein the opening of the sensing  
tube is proximate to an entrance to the first naris.
29. The nasal function test device as defined in claim 27 wherein the opening of the sensing  
tube is a measurable distance within the first naris.

30. The nasal function test device as defined in claim 19 further comprising third airflow sensor fluidly coupled to the first airflow sensor, and wherein the first airflow sensor is adapted to produce the measured flow signal during inhalation, and wherein the third airflow sensor is adapted to produce a measured flow signal

31. The nasal function test device as defined in claim 19 further comprising:  
wherein the processor is further programmed to determine an area under a curve produced by changes in the first measured flow signal during at least one of inhalation and exhalation, the area being a first breathing score;  
wherein the processor is further programmed to determine an area under a curve produced by changes in the second measured flow signal during at least one of inhalation and exhalation, the area being a second breathing score; and  
wherein the processor determines a difference between the first and second breathing score.

32. A system comprising:  
a differential pressure measurement device having first and second ports, wherein the first port is adapted to be fluidly coupled to a first nostril of a patient, and wherein the second port is adapted to be fluidly coupled to a second nostril of a patient;  
an indicator coupled to the differential pressure measurement device, and wherein the indicator displays an indication of a difference in air pressure associated with airflow in each of the first and second nostrils.

33. The system as defined in claim 32 wherein the indicator further comprises a display device that provides a plot of the pressure reading taken by the differential pressure device as a function of time.
34. The system as defined in claim 32 further comprising:  
a nasal cannula having a first and second sensing lines, the first and second sensing lines not in fluid communication; and  
wherein the first sensing line couples to the first port, and wherein the second sensing line couples to the second port.
35. A method comprising:  
measuring a relative airflow as between the nostrils of a patient with the patient's head held in a first position and at a first respiratory rate;  
measuring a relative airflow as between the nostrils of the patient with the patient's head held in a second position and at a second respiratory rate;  
wherein the first and second position are one each selected from the group of: head upright, head tilted left, head tilted left, head facing down and head facing up; and  
wherein the first and second respiratory rate are one each selected from the group of: tidal breathing and maximum inspiration.
36. The method as defined in claim 35 further comprising determining whether there are differences in measured relative airflow between the first position and the second position.

37. The method as defined in claim 35 wherein measuring the relative airflow as between the nostrils of a patient with the patient's head held in a first position further comprises measuring without blocking either nostril.

38. The method as defined in claim 37 wherein measuring the relative airflow as between the nostrils of the patient with the patient's head held in a second position further comprises measuring without blocking either nostril.

39. The method as defined in claim 35 further comprising:  
measuring oral airflow with the patient's head in the first position; and  
measuring oral airflow with the patient's head in the second position.

40. A nasal function test device comprising:  
a first pressure sensor adapted to detect a pressure associated with an airflow through a first naris to create a first measured signal;  
a second pressure sensor adapted to detect a pressure associated with an airflow through a second naris to create a second measured signal; and  
a processor electrically coupled to the first and second pressure sensors, and wherein the processor is programmed to substantially simultaneously read the first and second measured signals.

41. The nasal function test device as defined in claim 40 wherein the processor is further adapted to determine a difference between the first and second measured signals.



42. The nasal function test device as defined in claim 42 further comprising a display device coupled to the processor, and wherein the processor displays an indication of the first and second measured signals on the display device.

43. The nasal function test device as defined in claim 42 wherein the display device displays a graph of the first and second measured signals as a function of time.

44. The nasal function test device as defined in claim 42 wherein the display device displays a difference between the first and second measured signals.

45. The nasal function test device as defined in claim 40 further comprising:  
a non-volatile memory coupled to the processor; and  
wherein the processor is programmed to store the first and second measured signals as a first set of data in the non-volatile memory, and wherein the processor is further programmed to analyze differences between the first set of data in the non-volatile memory and a second set of data taken at a different time.

46. The nasal function test device as defined in claim 40 further comprising:  
a bifurcated nasal cannula having a first sensing tube and a second sensing tube; and  
wherein the first sensing tube fluidly couples to the first pressure sensor, and wherein the second sensing tube fluidly couples to the second pressure sensor.